

The Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously presented): A drive assembly for an infusion pump, the assembly comprising:
 - a. a reservoir for containing a fluid, the reservoir being the exclusive component of the drive assembly capable of containing a fluid for infusion;
 - b. a barrel, distinct from the reservoir, for holding the reservoir, the barrel characterized by a longitudinal barrel axis of rotation and a clearance hole in a barrel end;
 - c. a rotating drive screw, the drive screw having a longitudinal screw axis and exterior threads, the screw axis displaced from and parallel to the barrel axis; and
 - d. a plunger rod, the rod having threads at least part of its length, the rod inserted through the clearance hole, the rod threads interlocking with and disengaging from the screw threads by rotating the barrel about the barrel axis.
2. (previously presented): A drive assembly according to claim 1, wherein the reservoir includes a plunger in engagement with the plunger rod, the plunger when axially displaced causing a change in volume in the reservoir; the drive assembly further including a locking hub, the hub in mechanical connection with the reservoir and the barrel, the hub capable of rotating the barrel, forcing the rod threads into and out of mechanical engagement with the drive screw threads.
3. (original): A drive assembly according to claim 1 wherein the drive screw threads and the rod threads are buttress threads.
4. (original): A drive assembly according to claim 1 wherein the barrel further includes a locking tab to inhibit rotation of the barrel about the barrel axis.

5. (original): A drive assembly according to claim 2 wherein the barrel further includes a locking tab to inhibit rotation of the barrel about the barrel axis and the locking hub includes a flange, the flange for dislodging the locking tab allowing the barrel to rotate.

6. (cancelled)

7. (original): A drive assembly according to claim 2 wherein the locking hub further includes an adapter, the adapter for receiving the reservoir, the adapter providing an axial offset to the reservoir so that the plunger rod threads can engage with the drive screw threads.

8. (new) A drive assembly for an infusion pump, the assembly comprising:

a pump barrel having a longitudinal barrel axis and holding a fluid reservoir containing a fluid for delivery by the pump;

a plunger rod having a longitudinal rod axis parallel to and displaced from the longitudinal barrel axis and threaded along at least a portion of its length, the plunger rod having a plunger at one end inserted into one end of the fluid reservoir so as to change the volume of the reservoir as the plunger is displaced within the reservoir; and

a threaded drive screw having a longitudinal screw axis parallel to and displaced from the longitudinal rod axis;

the assembly being characterized by:

(i) a loading position in which the plunger rod threads and the drive screw threads are not engaged so as to facilitate loading fluid into the fluid reservoir, and

(ii) an operating position in which the plunger rod threads and the drive screw threads are engaged such that rotation of the drive screw displaces the plunger to change the volume of the reservoir to deliver fluid out from the reservoir.

9. (new) A drive assembly according to claim 8, wherein rotation between the plunger rod and the drive screw engages and disengages them to switch from one operating position to another.

10. (new) A drive assembly according to claim 8, further comprising:
a locking hub for controlling the engaging and disengaging of the plunger rod threads and the drive screw threads.
11. (new) A drive assembly according to claim 8, wherein the plunger rod threads and the drive screw threads are buttress threads.